

Appl. No. 10/720,919

Amdt. dated October 23, 2007

Reply to Office action of July 25, 2007

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently amended). A nursery irrigating system comprising:

- (a) a remotely placed water storage tank connected to at least one plant tray with an overhead pipe system;
- (b) the overhead pipe system having a main delivery pipe to deliver to at least one root ball of at least one plant without direct water with any leaf of the at least one plant and remove water from the at least one plant tray;
- (c) the nursery irrigating system being easily disassembled and reconfigured, ~~and reconfigured~~;
- (d) a controller allowing for unattended system operation;
- (e) the remotely placed water storage tank having the delivery pipe connected to a centrifugal pump; and
- (f) the centrifugal pump providing force to move water into the overhead pipe system.

Claim 2 (Cancelled).

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Claim 3 (Cancelled).

Claim 4 (Currently amended). The nursery irrigation system of ~~claim 3~~ Claim 1 further comprising:

(a) a venturi vacuum pump to remove water also connected to the main delivery pipe;

(b) the overhead pipe system having an ascending pipe connected between the main delivery pipe and the venturi vacuum pump;

(c) the ascending pipe being connected between the main delivery pipe and the centrifugal pump;

(d) the main delivery pipe being connected to a tray delivery assembly;

(e) the tray delivery system feeding a supply of water to the at least one plant tray at the root ball of the at least one plant contained in the at least one plant tray from below the at least one plant tray; and

(f) the tray delivery system removing the supply of water to the at least one plant tray.

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Claim 5 (Currently amended). The nursery irrigation system of Claim 4 further comprising a check valve mounted on the ~~main delivery~~ ascending pipe to prevent water from backflowing from the ~~delivery pipes~~ overhead pipe system into the storage tank.

Claim 6 (Currently amended). The nursery irrigation system of Claim 5 further comprising at least one tee line ~~tee lines~~ in the main delivery pipe that feed water to the tray delivery assembly ~~for delivery in order to furnish water~~ to each of the at least one plant in a plant tray.

Claim 7 (Currently amended). The nursery irrigation system of Claim 6 further comprising a solenoid valve for the controller in the tray delivery assembly which can be remotely controlled ~~to initiate and~~ in order to initiate or terminate the supply of water to the plant tray.

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Claim 8 (Currently amended). The nursery irrigation system of Claim 7 further comprising:

(a) ~~a solenoid~~ the solenoid valve in the connecting to the tray delivery assembly;

(b) the controller including the solenoid valve attached to a timer in order to allow for timed operation of the initiation and termination of the supply of water to the plant tray; and

(c) the controller providing timed control of the flow to and removal of water from the plant table.

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Claim 9 (Currently amended). The nursery irrigation system of Claim 8 further comprising:

(a) ~~the use of a Venturi Vacuum to remove~~ venturi vacuum pump removing water from the plant tray ~~through the tray drain assembly and the main drain assembly and into the storage tank;~~

(b) the tray delivery assembly including a tray drain assembly connected to a main drain assembly and into the storage tank;

(c) the main drain assembly being connected to the main delivery pipe; and

(d) the venturi vacuum pump sending water through the tray drain assembly into the main drain assembly on a return to the storage tank.

Claim 10 (Currently amended). The nursery irrigation system of Claim 9 further comprising a vacuum shut off valve ~~acting under pressure from~~ cooperating with the centrifugal pump to allow water to flow on to the plant tray at the root ball and ~~acting under vacuum from~~ cooperating with the venturi vacuum pump ~~allows to allow water to~~ flow from the plant tray.

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Claim 11 (Currently amended). The nursery irrigation system of Claim 10 further comprising a check valve on the tray drain pipe ~~preventing~~ in order to prevent backflow of water from the main drain pipe into the tray drain assembly.

Claim 12 (Currently amended). The nursery irrigation system of Claim 11 further comprising an input line ~~from~~ connecting the main drain line into the water storage tank.

Claim 13 (canceled).

Claim 14 (Currently amended). The nursery irrigation system of ~~Claim 11~~ Claim 12 further comprising the controller having up to 60 timers each of the up to 60 timers being connected hooked to a separate member in a group of the solenoid valve solenoid valves to have timed control of the flow and removal of water from the plant table.

Claim 15 (Currently amended). The nursery irrigation system of Claim 14 further comprising ~~a tray~~ the tray drain assembly ~~that can be~~ being easily disconnected from the main drain assembly and readily disassembled and reassembled.

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Claim 16 (Currently amended). The nursery irrigation system of Claim 15 further comprising ~~a tray~~ the tray delivery assembly ~~that can be being~~ easily disconnected from the main delivery assembly and easily disassembled and reassembled.

Claim 17 (Currently amended). The nursery irrigation system of Claim 16 further comprising a main delivery assembly ~~that can be being~~ easily disassembled and reassembled.

Claim 18 (canceled).

Claim 19 (withdrawn).

Claim 20 (withdrawn).

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Claim 21 (New). A nursery irrigating system adapted to feed water to at least one root ball of at least one plant in at least one plant tray comprising:

a remotely placed water storage tank connected to at least one plant tray with an overhead pipe system;

the overhead pipe system having a main delivery pipe to deliver and remove water from the at least one plant tray;

the nursery irrigating system being easily disassembled and reconfigured;

a controller allowing for an unattended operation of the overhead pipe system;

the remotely placed water storage tank having the delivery pipe connected to a centrifugal pump; and

the centrifugal pump providing force to move water into the overhead pipe system;

a venturi vacuum pump to remove water also connected to the main delivery pipe;

the overhead pipe system having an ascending pipe connected between the main delivery pipe and the venturi vacuum pump;

the ascending pipe being connected between the main delivery pipe and the centrifugal pump;

the main delivery pipe being connected to a tray

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delivery assembly;

the tray delivery system feeding a supply of water through the main delivery pipe to the at least one plant tray at the root ball of at the least one plant contained in the at least one plant tray from below the at least one plant; and

the tray delivery system removing the supply of water from the at least one plant tray through the main delivery pipe.

Claim 22 (New). The nursery irrigation system of Claim 21 further comprising a check valve mounted on the ascending pipe to prevent water from backflowing from the overhead pipe system into the storage tank.

Claim 23 (New). The nursery irrigation system of Claim 22 further comprising at least one tee line in the main delivery pipe that feed water to the tray delivery assembly in order to furnish water to each of the at least one plant in a plant tray.

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Claim 24 (New). The nursery irrigation system of Claim 23 further comprising a solenoid valve for the controller in the tray delivery assembly which can be remotely controlled and in order to initiate or terminate the supply of water to the plant tray.

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Claim 25 (New). The nursery irrigation system of Claim 24 further comprising:

the solenoid valve being connected to the tray delivery assembly;

the controller including the solenoid valve attached to a timer in order to allow for timed operation of the initiation and termination of the supply of water to the plant tray;

the controller providing timed control of the flow to and removal of water to the plant table;

the venturi vacuum pump removing water from the plant tray;

the tray delivery assembly including a tray drain assembly connected to a main drain assembly and into the storage tank;

the main drain assembly being connected to the main delivery pipe; and

the venturi vacuum pump sending water through the tray drain assembly into the main drain assembly on a return to the storage tank.

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Claim 26 (New). The nursery irrigation system of Claim 9 further comprising:

a vacuum shut off valve cooperating with the centrifugal pump to allow water to flow on to the plant tray at the root ball and cooperating with the venturi vacuum pump to allow water to flow from the plant tray;

a check valve in the tray drain pipe preventing a backflow of water from the main drain pipe into the tray drain assembly;

an input line connecting the main drain line to the water storage tank;

the controller having up to 60 timers each of the up to 60 timers being connected to a separate member in a group of the solenoid valve to have timed control of the flow and removal of water from the plant table;

the tray drain assembly being easily disconnected from the main drain assembly and readily disassembled and reassembled;

the tray delivery assembly being easily disconnected from the main delivery assembly and easily disassembled and reassembled; and

the main delivery assembly being easily disassembled and reassembled.